

Remarks/Arguments

Claims 1, 4-14, 16-23, 26-34 and 36-45 are pending in the application. Claims 4, 11, 12, 26, 29-32, 44 and 45 are cancelled. Claims 1, 23 and 43 have been amended to advance prosecution of the application. Claims 5, 18, 20, 21, 27, 38, 41 and 42 have been amended for clarification purposes only. Claims 13, 14, 33 and 34 were amended to depend from a pending claim. The amendments add no new matter. Applicants' amendments to claims 1, 23 and 43 are not an admission and Applicants reserve the right to prosecute broader claims in a continuation application. Claims 50-60 are newly added. These claims find support in the originally filed claims. The rejections will be addressed as they apply to the newly added claims as well.

Rejections under 35 U.S.C. § 112, second paragraph

Claims 5, 18, 20, 21, 27, 38, 41 and 42 were rejected as indefinite due to inclusion of the word "about." In the interest of advancing prosecution, Applicants have deleted the term about from the claims. Thus, the rejection should be withdrawn and the claims allowed.

Rejections under 35 U.S.C. § 103(a)

Claims 1, 5-10, 12-14, 18-23, 27-30, 32-34, 38-41 and 44-45 were rejected as obvious over Pullman (U.S. Patent No. 6,492,174) in view of Handley et al. (U.S. Patent No. 5,491,090). Claims 4 and 26 were rejected as obvious over Pullman in view of Handley and further in view of Schuller (Plant Cell Reports (1993) 12:199-202). Claims 16, 17, 36 and 37 were rejected as obvious over Pullman in view of Handley and further in view of Coke (U.S. Patent No. 5,534,433). None of the references teach or suggest use of media comprising lactose in

combination with an additional sugar in the induction, maintenance or prematuration medium for reproducing coniferous embryos and producing embryos suitable for germination as claimed in the currently amended independent claims. In addition, none of the references teach or suggest use of a maintenance or prematuration media comprising a galactose-containing sugar and an additional sugar for reproducing coniferous somatic embryos and producing embryos suitable for germination. Therefore, Applicants respectfully request that the rejections be withdrawn and the claims allowed.

Claims 1, 5-10, 12-14, 18-23, 27-30, 32-34, 38-41 and 44-45 were rejected as obvious over Pullman et al. in view of Handley et al. The Examiner asserts that Pullman teaches a method of initiating embryogenic cultures of conifers using a medium comprising between 5 and 70g/l of maltose, glucose, fructose, sucrose, galactose or combinations thereof. Pullman does not teach media for maintenance or prematuration of somatic embryos. The Examiner asserts that this deficiency is cured by Handley. The Examiner asserts that Handley teaches that the induction and maintenance media contain sugar selected from glucose, maltose, sucrose, melezitose and combinations thereof and that the prematuration media contains sugar selected from glucose, maltose, sucrose and combinations thereof. The Examiner states "It would have been obvious to one of ordinary skill in the art at the time the invention was made to reproduce coniferous somatic embryos wherein the nutrient medium contains a galactose-containing sugar and additional sugar as taught by Pullman et al and to modify the prematuration medium containing ABA and no auxin and cytokinin when compared to the maintenance medium containing auxin and cytokinin as taught by Handley."

Applicants respectfully submit that neither of the references teaches an induction, maintenance or prematuration medium comprising lactose as required by newly amended independent claims. In addition, neither reference teaches use of a galactose-containing sugar and an additional sugar in either the maintenance or the prematuration media. Therefore, Pullman and Handley do not teach or suggest each and every limitation of the independent claims. Applicants respectfully request that the rejection be withdrawn and the claims allowed.

Claims 4 and 26 were rejected as obvious over Pullman in view of Handley and further in view of Schuller. The Examiner asserts that Schuller supplements the deficiencies in Pullman and Handley by teaching that lactose was a superior carbon source in the maturation stage of *Abies alba*. Claims 4 and 26 have been cancelled, but the rejection will be addressed as it applies to claims 1, 23, 43, 50 and 55. Schuller does not teach use of lactose in the induction, maintenance or prematuration media, but only in the maturation medium. Schuller also does not teach use of lactose (or a galactose-containing sugar) in combination with an additional sugar in these media. Finally, Schuller does not teach development of cotyledonary stage embryos suitable for germination, but only of embryos up to the torpedo stage. Thus, the combination of references does not teach each and every element of claims 1, 23, 43, 50 or 55. The Examiner is impermissibly using hindsight and the Applicants' specification to piece together an obviousness rejection. Applicants respectfully request that the rejection be withdrawn and the claims allowed.

Claims 16, 17, 36 and 37 were rejected as obvious over Pullman in view of Handley and further in view of Coke. The Examiner asserts that Coke supplements the teachings of Pullman and Handley by teaching that the nutrient medium for *Pinus taeda* embryos may contain sucrose.

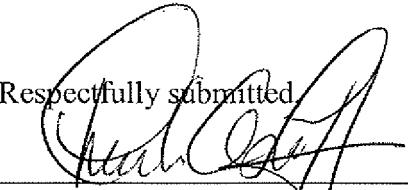
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The Examiner notes that the Coke embryos developed to the cotyledon stage and were suitable for germination. Coke does not cure the deficiencies in Pullman and Handley. Coke does not teach or suggest an induction, maintenance or prematuration medium comprising lactose as required by independent claims 1, 23, 43 and 50 and the claims dependent therefrom. Coke also does not teach or suggest a maintenance or prematuration media comprising a galactose-containing sugar and an additional sugar as required by claim 55 and the claims dependent therefrom. Applicants respectfully request that the rejection be withdrawn and the claims allowed.

Accordingly, Applicants respectfully request withdrawal of the rejections and allowance of the claims. No fee is believed to be due in connection with this response. However, if an additional fee is owed, please charge such fee to Deposit Account No. 50-1965.

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Respectfully submitted


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